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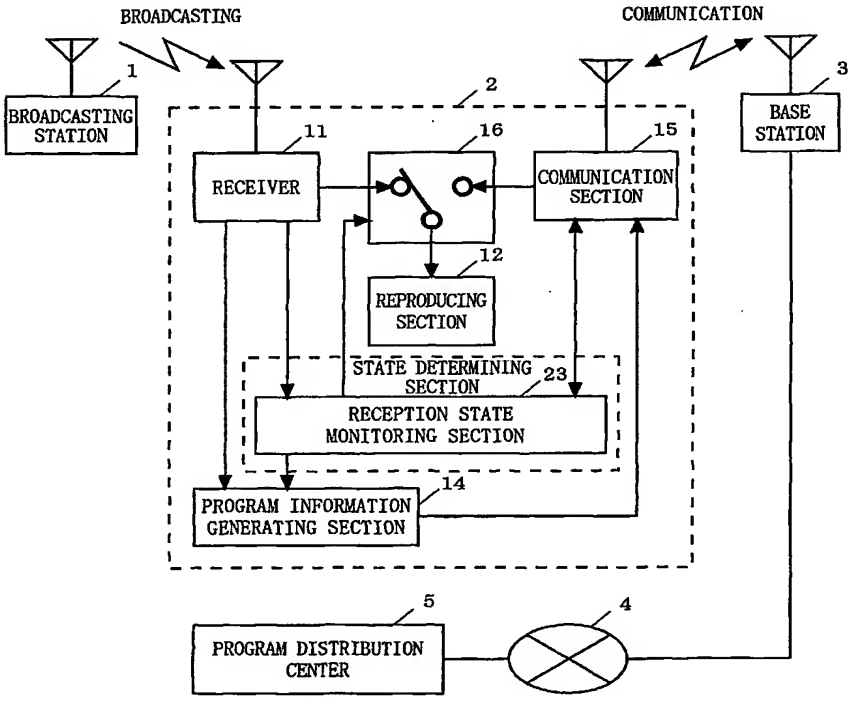
[Continued on next page]

(54) Title: MOBILE TERMINAL HAVING FUNCTIONS OF PROGRAM RECEPTION THROUGH BROADCASTING AND THROUGH NETWORK COMMUNICATION, AND PROGRAM RECEPTION CONTROLLING METHOD



(57) Abstract: A mobile terminal is provided for achieving continuous program viewing/listening by appropriately switching between program reception through broadcasting and program reception through communication with a broadcast receiving function and a communication function working cooperatively. A receiver (11) receives a program broadcasted from a broadcasting station (11). A reception state monitoring section (23) monitors a state of receiving the broadcast program in the receiver (21). If the reception state is in a satisfactory state, the broadcast program is reproduced by the reproducing section (12). Upon determination by the reception state monitoring section (23) that the reception state has been deteriorated, a program information generating section (14) generates program information specifying the broadcast program being currently received by the receiver (11), and then gives the program information to a communication section (15). The communication section (15) communicates with a program distribution center (5) to receive program data corresponding to the generated program information by streaming. The program data received through communication is reproduced instead of the broadcast program by the reproducing section (12).

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Published:
— *with international search report*
— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

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PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference	FOR FURTHER ACTION	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
PCT04-133		
International application No.	International filing date *(day/month/year)*	(Earliest) Priority Date *(day/month/year)*
PCT/JP2004/002684	03/03/2004	03/03/2003
Applicant		
MATSUSHITA ELECTRICAL INDUSTRIAL CO., LTD.		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 5 sheets.

[X] It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**
   a. With regard to the **language,** the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
      [ ] The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).
   b. [ ] With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. [ ] **Certain claims were found unsearchable** (See Box II).

3. [ ] **Unity of invention is lacking** (see Box III).

4. With regard to the **title,**
   [ ] the text is approved as submitted by the applicant.
   [X] the text has been established by this Authority to read as follows:

MOBILE TERMINAL HAVING FUNCTIONS OF PROGRAM RECEPTION THROUGH BROADCASTING AND THROUGH NETWORK COMMUNICATION, AND PROGRAM RECEPTION CONTROLLING METHOD

5. With regard to the **abstract,**
   [ ] the text is approved as submitted by the applicant.
   [X] the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regards to the **drawings,**
   a. the figure of the **drawings** to be published with the abstract is Figure No. 6
      [ ] as suggested by the applicant.
      [X] as selected by this Authority, because the applicant failed to suggest a figure.
      [ ] as selected by this Authority, because this figure better characterizes the invention.
   b. [ ] none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International Application No
PCT/JP2004/002684

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H04L12/56 H04H1/08 H04Q7/22 H04L29/08 H04L29/06

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 H04L H04H H04Q H04M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2002/010763 A1 (SALO JUHA ET AL) 24 January 2002 (2002-01-24) the whole document	1-13
A	EP 1 237 302 A (RAI RADIOTELEVISIONE ITALIANA) 4 September 2002 (2002-09-04) the whole document	1-13
A	US 6 122 263 A (DAHLIN STEINAR ET AL) 19 September 2000 (2000-09-19) the whole document	1-13
A	WO 99/18684 A (ANGLIN RICHARD JR) 15 April 1999 (1999-04-15) the whole document	1-13

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[X] Further documents are listed in the continuation of box C.

[X] Patent family members are listed in annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
14 July 2004	22/07/2004

Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Jimenez Hernandez, P

Form PCT/ISA/210 (second sheet) (January 2004)

INTERNATIONAL SEARCH REPORT

International Application No
PCT/JP2004/002684

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	HORN U ET AL: "INTERACTIVE MOBILE STREAMING SERVICES THE CONVERGENCE OF BROADCAST AND MOBILE COMMUNICATION" EBU REVIEW- TECHNICAL, EUROPEAN BROADCASTING UNION. BRUSSELS, BE, no. 281, 21 September 1999 (1999-09-21), pages 14-19, XP000862720 ISSN: 0251-0936 the whole document	1-13

Form PCT/ISA/210 (continuation of second sheet) (January 2004)

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No
PCT/JP2004/002684

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
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			AU	8388501 A	08-01-2002
			CN	1449625 T	15-10-2003
			WO	0201879 A2	03-01-2002
			EP	1300022 A2	09-04-2003
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			EP	1237302 A2	04-09-2002
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			CN	1260094 T	12-07-2000
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			JP	2002503419 T	29-01-2002
			WO	9857482 A1	17-12-1998
WO 9918684	A	15-04-1999	AU	9575998 A	27-04-1999
			WO	9918684 A1	15-04-1999

INTERNATIONAL SEARCH REPORT

International application No.
PCT/[redacted]04/002684

Box No. IV Text of the abstract (Continuation of item 5 of the first sheet)

(1)

A mobile terminal is provided for achieving continuous program viewing/listening by appropriately switching between program reception through broadcasting and program reception through communication with a broadcast receiving function and a communication function working cooperatively. A receiver (11) receives a program broadcasted from a broadcasting station (11). A reception state monitoring section (23) monitors a state of receiving the broadcast program in the receiver (21). If the reception state is in a satisfactory state, the broadcast program is reproduced by the reproducing section (12). Upon determination by the reception state monitoring section (23) that the reception state has been deteriorated, a program information generating section (14) generates program information specifying the broadcast program being currently received by the receiver (11), and then gives the program information to a communication section (15). The communication section (15) communicates with a program distribution center (5) to receive program data corresponding to the generated program information by streaming. The program data received through communication is reproduced instead of the broadcast program by the reproducing section (12).